

SUBMISSION TO INDEPENDENT PLANNING COMMISSION

NARRABRI GAS PROJECT OBJECTION

We are opposed to the Narrabri Gas project proceeding. It is not worth risking the adverse impact on the environment of the chemicals that will be associated with gas production to obtain new sources of gas for consumption in NSW, as described in the environmental impact statement.

Our concerns and objections include environmental, health and social issues:

Greenhouse gas leaks and methane emissions: Research indicates that leaked methane, a powerful greenhouse gas, from wells essentially wipes out any greenhouse gas benefits of natural gas derived from non-convention gas production (NCGP), which includes the process proposed for the Narrabri Gas Project. At other points in transmission and distribution, there are further ample leaks. The global warming potential of methane is 84 times that of carbon dioxide on a 20 year horizon, and 25 times on a 100 year horizon.

Lack of incentive to invest in renewable power production: The embrace of cheap natural gas will undercut incentives to invest in solar, wind and other renewable productions by power producers. Oil companies have been notoriously slow in pivoting their business towards cleaner energy sources. They argue they can't invest in renewables because renewable projects offer much lower returns than oil and gas projects.

The oil and gas sector currently accounts for just 2 percent of investment in renewables. Wind and solar power are more expensive than natural gas, and though these prices have been coming down, they're chasing the fall in the cost of natural gas. Natural gas can stop the incentive to develop a renewable industry.

Drinking water: The proposed method of production involves drilling wells through the Great Artesian Basin aquifer into lower coal seams with the assistance of proprietary mixtures of chemicals. Many of the chemicals that are components of such mixtures are known for their adverse health consequences [refer: Submission to the NSW Government Department of Planning and Environment on the Narrabri Gas Project by Doctors for the Environment Australia May 2017]. Similar chemical mixtures are injected into the wells to facilitate gas extraction. When water is extracted from the wells to reduce pressure in the coal seam to release the gas, chemicals present in the coal are also brought to the surface. These chemicals are also known to for their adverse health consequences. A break in the well lining could allow any of these production chemicals to escape into the aquifer. Given the large land area of the Great Artesian Basin, which lies under the land to be drilled, contamination by chemicals that enter the Basin at Narrabri over the production life of the wells, can spread and impact both humans and livestock at a great distance from that site. These effects will last much longer than the production life of the wells. Santos plans to purify the co-produced water prior to release into the environment for irrigation and for stock watering. The impurities will initially be stored in evaporating dams where they will concentrate. [refer: Narrabri Gas Project Environmental Impact Statement submitted to Department of Planning, Industry and Environment with Development Application SSD-6456]. There is no guarantee that these dams will not be breached during

prolonged or severe wet weather. There have been many examples from around the world of by-product dams failing in such circumstances, leading to pollution of a much larger area than the dam itself.

Health of local residents: There are harmful effects to those living near extraction sites. A host of ancillary components released at well sites can lead to health problems such as irritation of the eyes, nose, mouth and throat. Local air pollution can aggravate asthma and other respiratory conditions. Regionally, NCGP processes release nitrogen oxides and volatile organic compounds, forming smog depriving workers and residents of clean air. A number of other air contaminants are released through the various drilling procedures, including construction and operation of the well site, transport of the materials and equipment, and disposal of waste. Some of the pollutants released by drilling include: benzene, toluene, xylene and ethyl benzene, particulate matter and dust, ground level ozone, carbon monoxide and metals contained in diesel fuel combustion.

A growing body of scientific studies reveal that dangerous levels of toxic air pollution near NCGP sites has been linked to a wide range of health impacts. Exposure to these pollutants are known to cause short-term illness, cancer, organ damage, nervous system disorders and birth defects.

Infrastructure, resources and communities: NCGP has many social impacts on communities and impinges on people's lifestyles. A small proportion of people will shoulder the burden and downsides of NCGP, with no real compensation for this intrusive industrial presence. The NCGP process proposed for the Narrabri Gas Project extracts large amounts of water with the gas. This extraction may reduce the amount of fresh water available to the local communities, particularly in areas where water availability is low. The proposed region has historically endured long periods of drought.

The heavy vehicles and equipment moving over local roads will impact local budgets and infrastructure. Roads, not built to support increased heavy traffic, will need constant maintenance. The new rigs and movement of trucks will diminish the quality of life for local residents and farming communities. Planning is often poorly handled with no preference given to local residents. An example of the negative impacts on a small regional community was Woodsreef Asbestos Mine at Barraba in northern NSW. Infrastructure did not cope with the increase in population and mining activities.

Landowners have no legal rights to refuse a gas company access to their land if it owns the mineral rights. This impacts privacy and ability to conduct routine activities. They have no rights to protect their water, land and livelihoods. (Dairy Australia 2015, *Unconventional Gas Mining: land access and farmer's rights*, Dairy Australia Ltd)

NCGP is the opposite to a sustainable solution for energy production. It poses a very real threat to local environments and communities; it risks the health, lifestyles and livelihoods of local residents. Scientific evidence shows that NCGP poses many environmental risks, some with irreversible consequences. Cheap natural gas from NCGP is not worth the risk it poses to the environment and the health and social impact on local communities.

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